SPECIFICATION:

Page 12, Equation (11), replace with the following new equation:

~~$$\mathbf{R}_{n+1}^{-1} = \begin{bmatrix} \mathbf{R}_n^{-1} + \dfrac{\mathbf{R}_n^{-1}\mathbf{r}_n\mathbf{r}_n^{\mathrm{H}}\mathbf{R}_n^{-1}}{\sigma_n^2 - \mathbf{r}_n^{\mathrm{H}}\mathbf{R}_n^{-1}\mathbf{r}_n} & \dfrac{\mathbf{R}_n^{-1}\mathbf{r}_n}{\sigma_n^2 - \mathbf{r}_n^{\mathrm{H}}\mathbf{R}_n^{-1}\mathbf{r}_n} \\ \dfrac{\mathbf{r}_n^{\mathrm{H}}\mathbf{R}_n^{-1}}{\sigma_n^2 - \mathbf{r}_n^{\mathrm{H}}\mathbf{R}_n^{-1}\mathbf{r}_n} & \dfrac{1}{\sigma_n^2 - \mathbf{r}_n^{\mathrm{H}}\mathbf{R}_n^{-1}\mathbf{r}_n} \end{bmatrix}, \quad (11)$$~~

$$\mathbf{R}_{n+1}^{-1} = \begin{bmatrix} \mathbf{R}_n^{-1} + \dfrac{\mathbf{R}_n^{-1}\mathbf{r}_n\mathbf{r}_n^{\mathrm{H}}\mathbf{R}_n^{-1}}{\sigma_n^2 - \mathbf{r}_n^{\mathrm{H}}\mathbf{R}_n^{-1}\mathbf{r}_n} & -\dfrac{\mathbf{R}_n^{-1}\mathbf{r}_n}{\sigma_n^2 - \mathbf{r}_n^{\mathrm{H}}\mathbf{R}_n^{-1}\mathbf{r}_n} \\ -\dfrac{\mathbf{r}_n^{\mathrm{H}}\mathbf{R}_n^{-1}}{\sigma_n^2 - \mathbf{r}_n^{\mathrm{H}}\mathbf{R}_n^{-1}\mathbf{r}_n} & \dfrac{1}{\sigma_n^2 - \mathbf{r}_n^{\mathrm{H}}\mathbf{R}_n^{-1}\mathbf{r}_n} \end{bmatrix}, \quad (11)$$

Page 16, last paragraph, replace with the following new paragraph:

In accordance with embodiments of the present invention, a receiver selects a search region according to the span of the CIR. Typically a search region is a contiguous region that includes the span T_{CIR} of the CIR. As defined previously, T_{CIR} is a contiguous region beyond which the energy of the composite CIR is negligible. **FIG. 9** illustrates [[a search region]] search regions with respect to T_{CIR} according to certain embodiments of the present invention. **FIG. 9** (A) and **FIG. 9**(B) make clear the definition of T_{CIR} for various CIR shapes. More specifically, T_{CIR} starts from the location where the energy of the composite CIR first become apparent, and ends at the earliest location after which the energy of the composite CIR is negligible. The energy of the composite CIR can be strong everywhere within T_{CIR}, as shown in **FIG. 9**(A). The energy of the composite CIR can be also zero or negligible in some part of T_{CIR}, as shown in **FIG. 9**(B). An energy threshold can be used to determine whether the energy of the composite CIR at a sample point is considered to be negligible.